

Monitoring & Evaluation Plan

Mongolia

August 2008



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1. Overview

On October 23, 2007, the Government of Mongolia (GoM) and the Millennium Challenge Corporation (MCC), a United States Government agency, signed a five-year, \$285 million Compact to reduce poverty in Mongolia through economic growth. Annex III of the Compact provided a description of the Monitoring and Evaluation (M&E) Plan for the MCA Program. Millennium Challenge Account – Mongolia (MCA-M) was created as the entity accountable for implementing the Compact activities.

Monitoring and Evaluation (M&E) is essential for a results-based approach to program management. It was a key component of program design and remains incorporated into all facets of the program cycle through program close-out. The purpose of the M&E system is (i) to allow for staff at all levels to continually check if project activities are actually contributing towards the MCC and MCA-M's intended outputs and outcomes and (ii) to assist MCA-M management to adjust the project strategy in order to maximize the MCC and MCA-M's impact.

The M&E Plan serves the following functions:

- Explains in detail how the MCC and MCA-M will monitor the various Projects to determine whether they are achieving their intended results and measure their larger impacts over time through evaluations.
- Outlines any M&E requirements that MCA-M must meet in order to receive disbursements.
- Serves as a guide for program implementation and management, so that MCA-M Management Unit staff, Board members, Stakeholders' Committee members, program implementers, beneficiaries, and other stakeholders understand the objectives and targets they are responsible for achieving, and are aware of their progress towards those objectives and targets during implementation.
- Establishes a process to alert implementers, stakeholders and MCC to any problems in program implementation and provides the basis for making any needed program adjustments.

This M&E plan is considered a binding document, and failure to comply with its stipulations could result in suspension of disbursements. It may be modified or amended as necessary only with the approval of MCC and if it is consistent with the requirements of the Compact and any other relevant supplemental legal documents. Unless otherwise indicated, capitalized terms used but not defined in this opinion have the meaning provided in the Compact.



2. Summary of the Program and Objectives

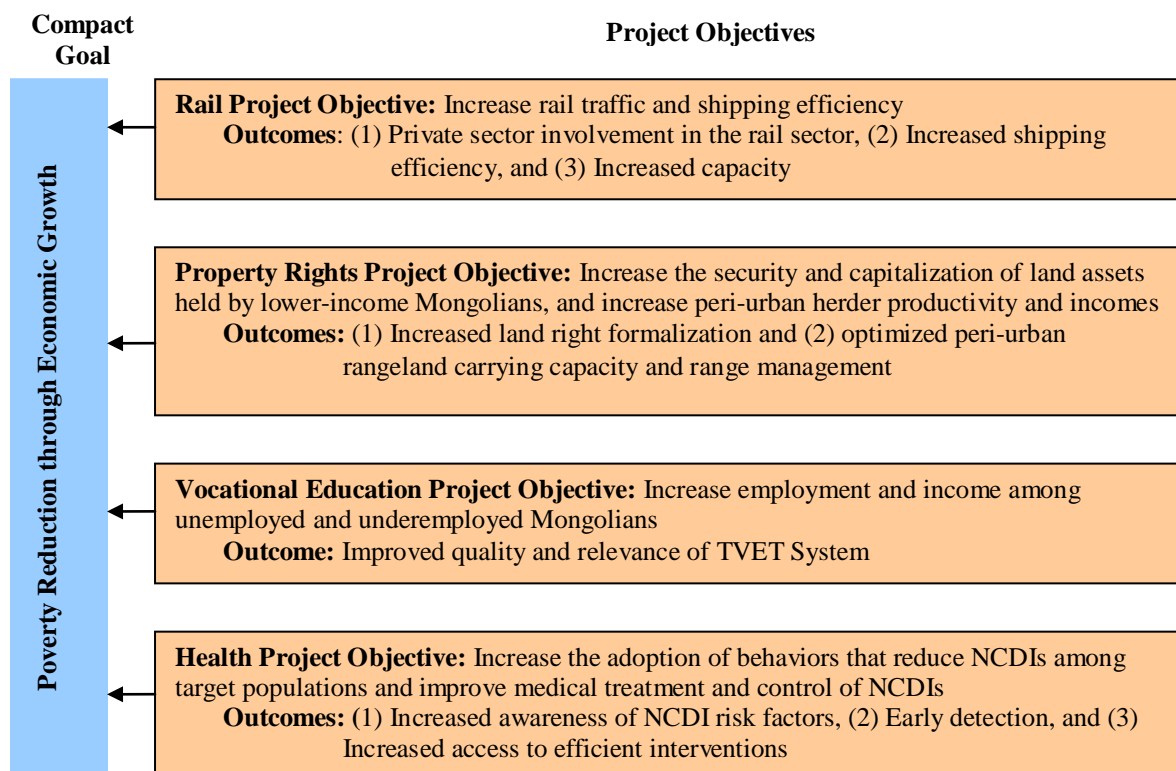
Mongolia is landlocked between Russia and China, with approximately 2.6 million inhabitants in a territory of 1.56 million square kilometers. Nearly half of the population is concentrated in Ulaanbaatar, its capital, approximately 60 percent is located along the rail corridor between Russia and China, and the remainder is largely dispersed throughout the country. Mongolia's aging transport infrastructure and weak institutions are a significant constraint to economic growth and development, particularly given the pressures of the country's abrupt transition to a market economy, the collapse of financial support from Russia, and the rapid urbanization of what traditionally has been a highly dispersed rural herding society.

The Program is intended to release the potential of certain critical interlocking human, institutional, and physical resources that factor centrally in Mongolia's efforts to broaden and deepen economic development. The Program is expected to have a significant direct impact on individuals living in poverty, and significant indirect and ancillary benefits by creating new economic opportunities and increasing the capacity of individuals and groups to participate fully in and benefit from economic growth.

The Program consists of the Rail Project, the Property Rights Project, the Vocational Education Project, and the Health Project, as further described below (each, a "Project"). The direct aim of the Mongolia Compact is to reduce poverty through economic growth in Mongolia as a result of (i) increased rail traffic and shipping efficiency, (ii) increased security and capitalization of land assets and increase in peri-urban herder productivity and incomes, (iii) increased employment and income among Mongolians, and (iv) increased adoption of behaviors that reduce non-communicable diseases and injuries (NCDIs) and improved medical treatment and control of NCDIs. As indicated in Annex III of the Compact, an impact evaluation will be designed to assess the extent to which poverty is reduced and economic growth is stimulated as a result of the Program. The Objectives and Outcomes of the Mongolia Compact can be summarized as follows:



PROGRAM LOGIC



Specific sub-activities for MCC funding were selected based on economic rates of return (ERRs) greater than or equal to the hurdle rate established by MCC of 15%. Further, the monitoring indicators for the Projects are tied closely to the assumptions used in the economic analysis of the Projects. The ERR models can be found on MCC's website as well as more detailed information on each of the Projects.

I. Project 1: Rail

Objective: Increase rail traffic and shipping efficiency

Estimated ERR: 32.2 percent

Summary of activities:

- Rail Sector Technical Assistance Activity: MCC Funding will be used to provide training and other technical assistance to UBTZ, the Mongolian Railway Authority ("**MRA**"), which is Mongolia's principal regulator of the rail sector, and certain other agencies, to improve their operational, management, maintenance, and regulatory practices.
- LeaseCo Establishment Activity: MCC Funding will be used to assist in the formation of a company owned by the Government to own and lease various railway assets under the Rail Project ("**LeaseCo**").
- LeaseCo Operation Activity: MCC Funding will be used to assist LeaseCo in acquiring various railway-related assets to lease to UBTZ and to other rail shippers and operators in Mongolia.

Beneficiaries:



- Mongolian Railway sector (UBTZ, Mongolian Railway Authority, Customs General Administration and Railway customers)
- Customers of Mongolian Railway sector (shippers and railway passengers)

II. Project 2: Property Rights

a) Property Registration

Objective: Increase the security and capitalization of land assets held by lower-income Mongolians

Estimated ERR: 38.5 percent

Summary of activities:

- (a) Improvement of the Land Privatization and Registration System Activity: MCC Funding will be used to improve the formal system of privatizing and registering land rights.
- (b) Privatization & Registration of Ger Area Land Plots Activity: MCC Funding will be used to privatize and register approximately 75,000 land plots in the *ger* areas of Ulaanbaatar and eight regional centers.

Beneficiaries:

- Land offices, Administration of State Registry of Title (ASRT) and related agencies
- Approximately 75,000 households in ger areas throughout Mongolia
- Administration of Land Affairs, Geodesy and Cartography (ALAGAC)
- Mongolia's financial sector

b) Peri-Urban Rangeland Management

Objective: Increase peri-urban herder productivity and incomes

Estimated ERR: 26.6 percent

Summary of activities:

- (a) Peri-Urban Land Leasing Activity: MCC Funding will be used to identify and lease approximately 300 serviced tracts of rangeland to herder groups in the peri-urban areas of Darkhan, Erdenet, and Ulaanbaatar.

Beneficiaries:

- Around 300 herder groups (representing approximately 1,000 households)

III. Project 3: Vocational Education

Objective: Increase employment and income among unemployed and underemployed Mongolians

Estimated ERR: 19.8 percent

Summary of activities:

- (a) Reforms to TVET Policy and Operational Framework Activity: MCC Funding will be used to strengthen the policy and operational framework, to create an efficient governance and standard-setting mechanism, and to secure private sector participation for technical and vocational education and training (“*TVET*”).
- (b) Creation of Skills and Standards and Competencies System Activity: MCC Funding will be used to establish skills standards and a competency-based qualification training system based on nationally approved units of competency, modules and courses, and to install these innovations in training institutes.



- (c) Competency-Based Training System Activity: MCC Funding will be used to implement the new competency-based training system in TVET schools.
- (d) Career Guidance System Activity: MCC Funding will be used to provide career guidance and employment information services to Mongolians.

Beneficiaries:

- TVET centers and teachers
- Ministry of Education, Culture and Science
- TVET students
- Professional labor market

IV. Project 4: Health

Objective: Increase the adoption of behaviors that reduce NCDIs among target populations and improve medical treatment and control of NCDIs

Estimated ERR: 21.0 percent

Summary of Activities:

- (a) NCDI Capacity Building Activity: MCC Funding will be used to ensure that the program is built on best international experience with NCDI.
- (b) NCDI Prevention Activity: MCC Funding will be used to reduce factors for NCDIs through such behavior change communications as public awareness campaigns and education outreach.
- (c) NCDI Early Detection Activity: MCC Funding will be used to mobilize client demand for screening, introduce modern cost-effective procedures, and provide key equipment.
- (d) NCDI Management Activity: MCC Funding will be used to improve the protocols and update training for medical professionals.

Beneficiaries:

- Approximately 43 to 45 percent of the adult population nationwide
- Ministry of Health and Government of Mongolia
- NCDI institutions and hospitals



Compact Beneficiaries	
Project/Sub-Activity	Number of Beneficiaries
1. Rail	Approximately 2,395,000 people over 20 years expected to benefit from increased economic activity attributable to the railway investment; Approximately 21,000 additional jobs created over 20 years
2. Property Rights	
Urban	75,000 households
Peri-urban	300 herder groups (approx. 1,000 households)
3. Vocational Education	Over the next 20 years, the TVET Project is expected to improve the wage and employment prospects of approximately 170,000 TVET graduates.
4. Health	Approximately 43 to 45 percent of the adult population nationwide who will have increased access to early detection of hypertension, elevated cardiovascular disease risks, and diabetes risks; Approximately 60 percent of adult women who will have access to early detection of breast and cervical cancer



3. Monitoring Component

Project and Activity performance will be monitored systematically, regularly, and on an on-going basis through the regular indicator tracking system. This analysis allows Directors of MCA-M and MCC to make programmatic adjustments as necessary with the view towards improving the overall impact of the Program.

Annex III of the Compact described the Compact Goal, Objective, and Outcome Indicators. This section of the M&E Plan builds on this information and includes a more defined outline of the plan for monitoring key indicators, including Output and Process Milestone Indicators. In addition, each implementer will monitor the inputs and outputs of each activity in a detailed manner. The M&E Officer in the MCA-M Management Unit will be available for consultation and assistance in setting up each implementer's monitoring plan.

Indicators

Project and Activity level outcomes will be measured by indicators. The Indicator Definition Tables in Attachment A provide a detailed definition of each indicator; unit of measurement, source of data, method of data collection and frequency of data collection.

Baselines and Targets for Performance

The baselines and targets for each indicator are shown in the Performance Tracking Tables in Attachment A. Targets are derived from the initial economic analysis justifying Program investments. Prior to implementation of a specific Activity, all baselines and targets relevant to that Activity should be specified, unless there are exceptions approved by MCC. If necessary, targets may be revised with written approval from MCC.

Disaggregating Data by Gender, Income, and Age

The following indicators can be disaggregated by gender (of individuals or head of household), age, and/or income/consumption and will be reported in this manner to MCC:

Indicators to be Disaggregated by Gender, Income and Age			
Indicators	Gender	Age	Income
Program			
Poverty rate	X	X	
Rail Project			
n/a			
Property Rights Project			
Households accessing bank credit	X	X	X
Income of herder households on long-term lease land	X	X	X
Number of herder groups adopting intensive and semi-intensive farm management techniques	X	X	X
Vocational Education Project			
Annual salary of TVET graduates	X	X	X



Rate of employment for TVET graduates	X	X	X
Students completing newly designed long-term programs	X	X	
Certified vocational education teachers	X	X	
Health Project			
Diabetes and hypertension controlled	X	X	X
Cervical cancer prevention		X	X
Percentage of cancer cases diagnosed in early stages	X	X	X
% of those with known diagnosis of hypertension/diabetes out of all actual cases in adult population	X	X	X

Data Quality Reviews

Data quality reviews (DQR) will verify reported performance data by analyzing the accuracy, reliability, timeliness, and objectivity of performance data. The objective of any data quality review is to verify the quality and the consistency of performance data over time, across different implementers and reporting institutions. Such data quality reviews will also identify cases in which the highest degree of data quality is not possible, given the realities of the data collection circumstances. These assessments will cover data reported from implementers, survey firms hired by MCA-M, and other data sources as necessary, such as the National Statistical Office (NSO), UBTZ, Mongolian Railway Authority, Property Registry Office, Cancer Center and related Government Agencies.

The particular objectives for the data quality reviews will be identification of the following parameters: i) what proportion of the data has quality problems (completeness, conformity, consistency, accuracy, duplication, integrity); ii) which of the records in the dataset are of unacceptably low quality; iii) what are the most predominant data quality problems within each field.

MCA-M will contract an independent data quality reviewer in compliance with MCC Program Procurement Guidelines. The entity responsible for data quality reviews should be hired no later than the end of Year 1 of the Compact. The M&E Officer and other Officers, as appropriate, within MCA-M and the PIUs should also regularly check data quality.

M&E Reports

Periodic Reports from MCA-M to MCC are required by the Program Implementation Agreement (PIA). Periodic Reports are part of a package of reports that MCA-M submits to MCC on a regular basis. MCC's Reporting Guidelines describe the necessary content of these Periodic Reports and their due dates. The guidelines and formats can be found on the web at www.mcc.gov under "Country Tools." Some of those reports include the tracking of on-going "actual" progress of Project and Activity indicators against "targeted" progress. These reports serve as a vehicle by which the MCA-M Management informs MCC of implementation progress, impediments, lessons learned, best practices and on-going field revisions to Project work plans. Periodic Reports will include data on the indicators described in the Monitoring Component and analysis of those data. The analysis will compare the actual results to the indicator targets and determine the reason for deviations from projections (above a certain threshold).



In addition to the regular Periodic Reports, MCA-M will prepare a final report called a **Program Completion Report (PCR)**. The PCR shall be prepared according to guidelines provided by MCC taking into consideration, among other things, the objectives and content of the Impact Evaluation. In addition to normal Progress Report content, the PCR should provide:

- A concise description of the Program from proposal to completion;
- A preliminary assessment of the Program's outcomes;
- Identification of beneficiaries including relevant characteristics, such as gender, age, and income level, and degree of participation (when possible);
- A preliminary assessment of the Program's sustainability--that is, its likelihood to reach the future monitoring targets established as a measure of the projects' sustainability
- Lessons learned.

The Program Completion Report is due at the latest ninety (90) calendar days from the expiration of the Compact.

Information about progress on implementation should be posted on MCA-M's website.

Linking Disbursements to Performance

The Program Implementation Agreement includes the following condition for each disbursement:

“there has been satisfactory progress on the M&E Plan for the Program, relevant Project or Project activity and substantial compliance with the requirements of such M&E Plan”
(PIA, Section 3.5 (b)(v))

Whether or not there has been satisfactory progress on the performance indicators will be analyzed by MCC each time a Disbursement Request is submitted and approval of each request will be conditional on MCC determining that there has been satisfactory progress on the indicators.

In addition, whenever feasible, MCA-M should include performance targets as deliverables against which payments will be made in implementation contracts. In other words, MCA-M contractors should be held responsible for achieving the M&E targets when applicable.



4. Evaluation Component

Evaluation is an essential element of the Mongolia Compact. One of the key features of the MCC's approach to development assistance is its strong commitment to conducting rigorous impact evaluations of its programs, which employ, whenever possible, methodologies that determine whether results can be reliably attributed to MCC interventions. However, in addition to impact evaluations, MCA-M will conduct process evaluations to improve program management and provide lessons learned before the impact can be analyzed.

Process Evaluations

Process evaluations will assess progress in meeting the Compact goals, objectives and outcomes assist to identifying changes to make the program operate as planned and for program improvement. They will provide early lessons learned and identify significant discrepancies between expected results and actual achievements, including an analysis behind the reasons for discrepancies between actual and projected indicator targets. Process evaluations also typically include qualitative analysis including key informant interviews, focus groups, documentation of dates, processes and participation in activities, and qualitative analysis of curricula (including syllabi, instructional materials, and content), etc.

MCA-M will engage independent evaluators to conduct process evaluations of various Project Activities. These evaluations will be paid for from the Mongolia M&E budget. These contracts are to be developed jointly with project Directors/PIUs, MCC sector experts, and the impact evaluators. The Activities that will undergo process evaluations will be determined jointly by MCC and MCA-M.

The process evaluation will begin from the program planning phase and continue through program implementation. Two main categories of data will be collected. The first data source will be the implementers: MCA-M PIU, Project contractors, Counterpart institutions, Ministries, etc. Data derived from these sources through qualitative analysis of processes and participation in activities will help to determine whether program outcomes are expected in planned way.

The second data source will be interviews and observations of participators or beneficiaries. During the observation, the following questions should be asked:

- Does the process proceed smoothly, or are communications and relations difficult and strained?
- Do participants work together to identify a range of potential strategies?
- What percentage of the intended content or need was covered?
- How many people did the project serve?
- How many hours of staff time and/or what kinds of resources were required by the program?
- Do people return to the project activity or recommend the project to others?

After the observation, if necessary, the interviews with key participants or beneficiaries should be conducted to complement information attained from observation. These interviews should reveal the reactions of participators and beneficiaries to the project implementation, noting their observations about difficulties encountered and associated explanations, as well as suggested solutions. An open-ended format for observations and questionnaires is



suggested so that observers are not limited in their focus.

Impact Evaluations

The Program will be evaluated based on the extent to which the interventions contribute to the Compact Goal, which is to decrease poverty through improved economic performance. These impact evaluations are different from process evaluations because they attempt to attribute any observable impacts to the Compact activities. In other words, a comparison group is used to analyze what would have happened without the Program. (The detailed Impact Evaluation Plan is attached.)

MCC will be responsible for contracting the impact evaluators for the Property Rights and Vocational Education Projects; whereas MCA-M will contract the impact evaluators for the Rail and Health Projects. The methodologies to be used in the impact evaluations will be decided upon by the entity responsible for conducting the evaluations based on a prior, agreed-upon statement of work.

Final impact evaluations will address the following issues at a minimum:

- Effectiveness of program activities in meeting Compact goals;
- Attribution of measurable outcomes to MCC/MCA-M interventions;
- Reasons behind the success or failure to achieve goals, objectives and targets;
- Unintended results of the program (positive and negative);
- Long-term sustainability of results;
- Re-estimated economic rates of return, comparisons to original estimates, and assessment of differences;
- Lessons learned applicable to similar projects.

Ad Hoc Evaluations and Special Studies

MCC or MCA-M may request ad hoc evaluations or special studies of Projects, Project Activities or the Program as a whole prior to the expiration of the Compact Term to be conducted by an outside entity contracted in compliance with MCC Program Procurement Guidelines.



5. Assumptions and Risks

The Mongolia program logic is based on specific assumptions about the linkages between individual Project Activities and the goal of poverty reduction through economic growth. Assumptions inform the economic analysis (economic rates of return) while risks are external to program implementation, but are likely to affect program success.

Rail Project	
<p>Assumptions</p> <p>Private sector involvement in a railway industry will bring efficiency in economy, operation and management of railway sector.</p> <p>Increased capacity of freight locomotives and freight wagons available for leasing will lead to increased efficiency on railway shipping and total production.</p>	<p>Risks</p> <p>Private sector participation may be constrained by poor transparency and cooperation of the current sole railway operator –UBTZ. Also, inadequate regulation of the railway sector may make private sector involvement more difficult.</p> <p>Shipping traffic will depend on seasonal demand for products that is transported through railway and number of companies that are capable to lease locomotives and wagons.</p>
Property Rights Project	
<p>Assumptions</p> <p>Improved accuracy and accessibility for recognizing and transferring land rights will help urban land owners to use their land as a marketable asset.</p> <p>Improved rangeland for leasing and supported training on rangeland management will advance livestock herding efficiency and productivity in peri-urban area.</p>	<p>Risks</p> <p>Usage of land as a marketable asset or number of people who was served by the land registration center will depend on land owner's personality, knowledge and entrepreneurial ability.</p> <p>Efficiency improvement on productivity of livestock herding in leased rangeland will not be high due to herders' experience, knowledge and management</p>



TVET Project	
<p>Assumptions</p> <p>Reforms to TVET policy, creation of skills standard and competencies system will help improved quality of TVET system.</p> <p>Capacity building on TVET schools around the country and new curriculum will advance TVET graduates' competency.</p> <p>TVET schools graduates will support the supply of technical labor force and contribute to the construction and production industry.</p>	<p>Risks</p> <p>Overall performance of TVET system will not be improved if it lacks Government financing, investment and policy support.</p> <p>TVET graduates' competency will not be advanced if capacity building on TVET and new curriculum fail to be market oriented and meet the demand of the labor market. TVET schools need to have good feedback and cooperation with private sector in labor market.</p> <p>Technical labor force demand will depend on economic circumstances and government policy at the macro level and skills and productivity of graduates at the micro level.</p>
Health Project	
<p>Assumptions</p> <p>Improved system for NCDI prevention will advance hospitals and medical centers to detect and treat NCDI effectively</p> <p>Behavior change against NCDI causes will reduce number of incidents and extends productivity of the labor force.</p> <p>Improvement on NCDI early detection activity will reduce the NCDI treatment cost and increase recovery rate.</p>	<p>Risks</p> <p>Performance of NCDI prevention system will depend on the effective application of the experience and knowledge of NCDI professionals as well as adequate Government support (budget for NCDI and public policy)</p> <p>Significant behavior change make take more time than anticipated hence affecting the number of incidents as well as rates of productivity of the labor force in the short-run.</p> <p>Early detection system may work ineffectively if people do not have desire engage in check-ups and to pursue benefits of early detection.</p>



6. Implementation and Management of M&E

Before beginning implementation of the Projects and Project Activities, MCA-M will orient staff and project implementers on how project performance is to be measured and will provide training necessary to comply with the M&E Plan. MCA-M will also review comments and suggestions from beneficiaries, including the Stakeholders' Committee. MCC and MCA-M may make adjustments to the M&E Plan as needed, provided any modification or amendment of the M&E Plan has been approved by MCC and is otherwise consistent with the requirements of the Compact and any other relevant supplemental legal documents.

Responsibilities

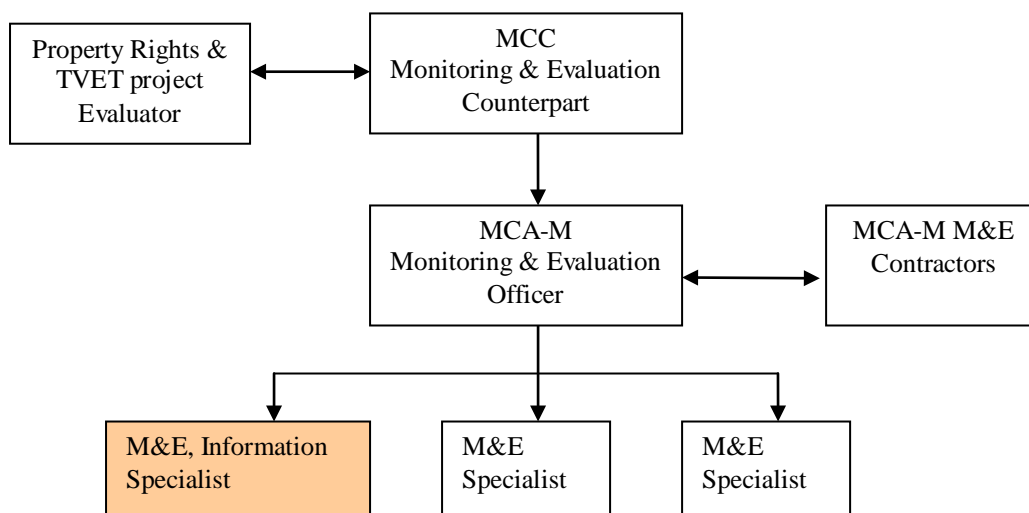
The general M&E responsibilities to be carried out by the Monitoring and Evaluation Officer (M&E Officer) and MCA-M M&E team will include the following:

- Guide the establishment of the M&E system, including data-collection, data-analysis and reporting systems;
- Ensure that the M&E Plan and ERR analysis are modified and updated as improved information becomes available;
- Design the impact evaluation strategy in collaboration with MCC and external consultants;
- Manage the data collection for the impact evaluations;
- Collaborate with the Procurement Officer to prepare and conduct procurement of M&E contracts;
- Ensure that findings are disaggregated by gender, age, and income, as applicable;
- Participate in monitoring through site visits, review of program reports and secondary data;
- Facilitate learning exchanges and information dissemination;
- Organize and oversee regular independent data quality reviews.

MCA-M M&E team will consist of four people: M&E Officer, 2 M&E Specialists and an M&E and Information Specialist who will work partially for the Health project of MCA-M. The overall M&E function will be implemented through MCA-M M&E team, MCC M&E counterpart and M&E independent contractors. In addition, MCA-M and PIU Directors will have to be integrally involved in the monitoring process to make sure that the M&E information is used to make important management decisions.



MCA-Mongolia M&E team operational structure



Review and Revision of the M&E Plan

The M&E Plan is designed to evolve over time, adjusting to changes in program activities and improvements in performance monitoring and measurement. In the fourth quarter of every year, the M&E Officer of MCA-M and representatives of the MCC M&E Division will review how well the M&E Plan has met its objectives. The review is intended to ensure that the M&E Plan measures program performance accurately and provides critical information on the need for changes in project design. The annual review is intended to ensure that the M&E plan:

- Shows whether the logical sequence of intervention outcomes is occurring;
- Checks whether indicator definitions are precise and timely;
- Checks whether M&E indicators accurately reflect program performance;
- Updates indicator targets, if targets are “TBD” or if projects have changed significantly; and
- Adds indicators, as needed, to track unmeasured results

The M&E Plan will be revised by MCA-M, in agreement with MCC, when the need for change has been identified in the review. The revised M&E Plan will be submitted to the MCA-M Board for approval if changes are substantial and to MCC for acceptance.

The Management Information System for M&E

MCA-M will establish and maintain a management information system (MIS) to track program progress and monitor the effect of each activity with timely and accurate reporting. The MIS will be developed and implemented in agreement with MCC. Performance and implementation data will be stored on the system and timely progress reports will be generated. This system may also be consolidated with that developed for financial reporting and the reporting of input and output monitoring indicators used by implementers to track project activity progress.



MCA-M will establish the MIS during the first Compact year. The system will be developed with the following considerations in mind:

- The requirements of MCC's MIS, which is called BIDS;
- Organization, staffing and processes for data collection;
- System design, including inputs, application software, and outputs;
- Performance and impact indicators;
- M&E work program deliverables and proposed budget allocations; and
- The MCA-M reporting schedule to the Board of Directors and MCC.

In addition, the MIS will be used to prepare customized reports based on Program indicators. This will allow for the prompt publication of monitoring and evaluation data on the MCA-M website in a standard format.

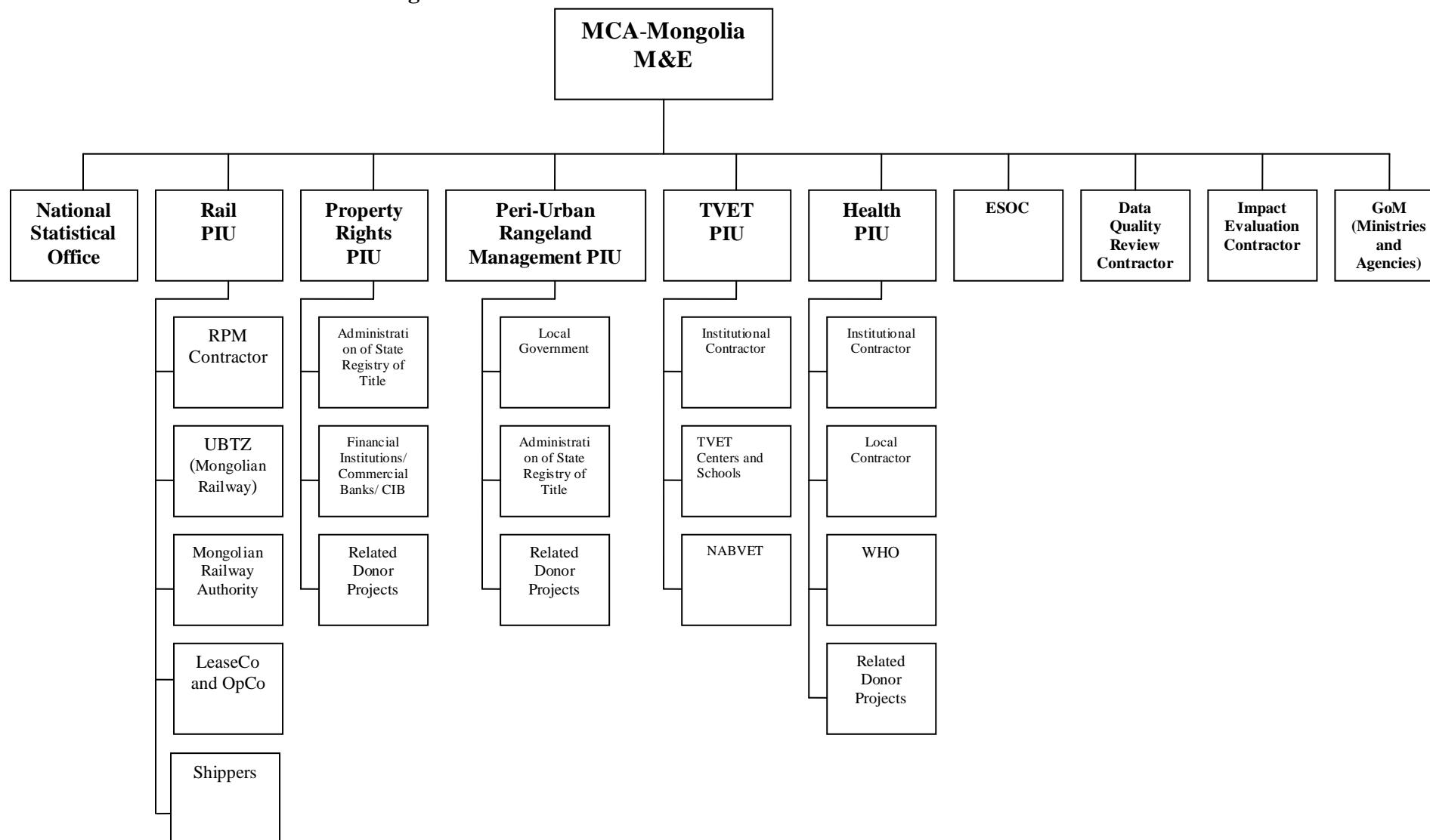
Coordination of M&E Data Gathering

MCA-M will receive data and reports from a variety of institutions, including project implementers, the National Statistical Office and contracted survey firms. The following diagram displays the flow of information from these organizations to MCA-M and the Indicator Definition Tables in Attachment A. outline the information that will be collected and reported by each institution¹.

¹ The diagram is meant to depict the flow of information, not the supervisory relationship of the organizations.



Coordination of M&E Data Gathering





M&E Budget

The proposed budget for M&E activities for the five-year term of the Compact is \$4.697 million. In addition approximately \$3 million from MCC funds will be used to collect information and complete the Final Impact Evaluations for the Property Rights and Vocational Education Projects. The M&E budget does not include the M&E staff of MCA-M or the PIUs, whose salaries and field trips are included in the administrative budget. A summary of the M&E Budget is shown below.

			TOTAL
Surveys			
<i>Health</i>	KAP		150,000
	STEPS		350,000
	Situation analysis at facilities		100,000
	Other Health Surveys		194,000
<i>TVET</i>	Survey of School Administration		90,000
<i>Property Rights</i>	MCA Special Hashaa Plot Survey		215,000
	MCA Peri-urban Survey		170,000
<i>Rail</i>	Survey of Rail Customer Satisfaction		80,000
Capacity Building			
<i>M&E Staff</i>	MCA		70,000
	PIUs		70,250
<i>TVET</i>	Survey of graduates (assistance to school administrations)		115,000
Data quality reviews			
	External Data Quality Reviewer		125,000
Management information system			
	Database hardware, software, and training		130,000
Evaluation			
	Final Impact Evaluations		1,800,000
	Process Evaluations		300,000
	Other Special Studies		737,350
COMPACT TOTAL			4,696,600



Attachments

A. Indicator Definition Tables

Compact Goal Indicators						
Program Goal	Indicator	Definition of Indicator	Units	Source/ Responsible Entity	Methodology	Frequency of Data Collection
Poverty Reduction	Poverty Headcount	National poverty rate in as measured by the National Statistical Office of Mongolia.	Percentage	National Statistical Office (NSO)	Social Economic Survey ¹ (SES)	Annual when available ²
Economic Growth	Gross Domestic Product	National gross domestic product.	Percentage	National Statistical Office	System of National Accounts (SNA)	Annual

¹ Combined survey of Household Income and Expenditure Survey (HIS) and the Living Standards Measurement Survey (LSMS);

² Currently NSO conducts the HIS and LSMS once every 5 years. Recently, NSO has decided to have an annual measurement of the poverty level, but it has not decided which survey will be used yet.



Rail Project

Indicator Type	Indicators	Definition	Data Source/ Responsible Entity	Frequency of Reporting to MCC	Units
Objective 1: Creation of new jobs and increased firm profitability					
Objective Indicator	Increase in Mongolia GDP due to rail improvements	Incremental level of GDP due to transport cost savings	NSO	Annual	Million 2007 USD
Objective 2: Increase rail traffic and shipping efficiency					
Objective Indicator	Freight Turnover	Freight mass multiplied by distance transported, includes shipping by all rail operators in Mongolia	UBTZ Statistics Office	Annual	Million ton-km
Objective Indicator	Mine traffic	Domestic plus export traffic of coal and other minerals	UBTZ Statistics Office	Annual	Thousand metric tons
Outcome 1: Private sector involvement in the rail sector					
Outcome Indicator	Percent of wagons leased	Percent of MCC financed wagons leased disaggregated by UBTZ and by private firms	LeaseCo	Annual after LeaseCo is established	Percent
Outcome 2: Increased shipping efficiency					
Outcome Indicator	Customer satisfaction	Customer satisfaction as determined by survey of rail customers	MCA-M Survey	Year 1 and Year 5	
Outcome Indicator	Railway operating ratio	Operating Expense/Operating Revenue	UBTZ, Annual income statement	Annual	Percent
Outcome Indicator	Wagon time to destination	Number of days from the time a wagon starts loading until the time it starts loading again. This is a monthly average of all operating and operable wagons in the fleet.	UBTZ	Annual	Days
Outcome 3: Increased capacity					
Outcome Indicator	Average locomotive availability (%)	(Locos at rail operators disposal - locos in repair)/(Locos at rail operator's disposal)	UBTZ and LeaseCo	Annual	Percent
Outputs					



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Output Indicator	Locomotives leased	Number of locomotives which have been leased by LeaseCo	Rail Project Director	Quarterly as available	Number
Output Indicator	Wagons leased	Number of open top freight wagons and specialized freight wagons which have been leased by LeaseCo	Rail Project Director	Quarterly as available	Number
Output Indicator	Maintenance equipment leased	Number of track maintenance equipment which have been Leased by LeaseCo	Rail Project Director	Quarterly as available	Number
Output Indicator	Signaling and Communications system leased	Number of a modernized signaling and communications system which have been leased by LeaseCo	Rail Project Director	Quarterly as available	Number
Process Milestones					
Process Milestone Indicator	Leasing company (LeaseCo) established	Leasing company incorporated and received registration certificate from State Registration Office	Rail Project Director	Once	Date
Process Milestone Indicator	Completion of UBTZ Financial Accounting Report	Financial Report issued by the UBTZ	Rail Project Director	Annual	Date
Process Milestone Indicator	Completion of all UBTZ technical training	Training activity implemented by RPM	Rail Project Director	Once	Date
Process Milestone Indicator	Operating company (OpCo) contract signed	Operating company contract signed by LeaseCo	Rail Project Director	Once	Date



Property Rights Project – Improvement of Land Privatization and Registration System Activity & Privatization & Registration of Ger Area Land Plots Activity

Indicator Type	Indicator	Definition	Data Source/Responsible Entity	Frequency	Units
Objective: Increase the capitalization of land assets					
Objective Indicator	Immovable property value of hashaa plots in UB	Average sales price of hashaa plot per square meter in UB.	MCA special hashaa plot survey	Annual	2007 USD per square meter
Objective Indicator	Immovable property value of hashaa plots outside UB	Average sales price of hashaa plot per square meter in target communities outside UB.	MCA special hashaa plot survey	Annual	2007 USD per square meter
Objective Indicator	Households accessing formal loan services	Number of hashaa plot owners in UB who are using their hashaa plot as collateral	Banks and PIU	Annual	Number
Outcome:					
Outputs:					
Output Indicator	Increased land right formalization	Cumulative number of hashaa plots registered by contractors of MCA-Mongolia	PIU	Quarterly	Number
Process Milestones					
Process Milestone Indicator	Legislative and regulatory commission report submitted	Establish 9 member Commission to evaluate the legal, regulatory, bureaucratic and other issues, inefficiencies or obstacles that impact the ability of Mongolian citizen to privatize and register land in relatively efficient and cost effective manner	PIU	Once	Date
Process Milestone Indicator	Design for registry office completed	Architectural plan should be completed in conjunction with business process analysis contractor	PIU	Once	Date
Process Milestone Indicator	Awareness and outreach campaign designed	Educating citizens about the importance of registering their hashaa plots and how to use land as and investment vehicle	PIU	Once	Date
Process Milestone Indicator	Satellite imagery procured	Procurement of high resolution satellite imagery for hashaa-plot mapping and verification of same	PIU	Once	Date
Process Milestone Indicator	Building provided for registry office	1500 square meters of structurally and environmentally sound office space provided for the State Registry Central Office	PIU	Once	Date



Property Rights Project – Peri-Urban Land Leasing Activity

Indicator Type	Indicator	Definition	Data Source/ Responsible Entity	Frequency	Units
Objective 1: Increased herder household income					
Objective Indicator	Income of herder households on long-term lease land	Net income of herder households on long-term lease land measured by total consumption	MCA peri-urban survey	Year 1 and Year 5	2007 USD
Objective 2: Increased peri-urban herder productivity					
Objective Indicator	Herd mortality rate	Annual mortality rate of cattle	Service provider	Annual	%
Objective Indicator	Liters of milk per cow	Annual average liters of milk per cow on semi-intensive project farms	Service provider	Annual	Liters
Objective Indicator	Liters of milk per cow	Annual average liters of milk per cow on intensive project farms	Service provider	Annual	Liters
Outcome: Optimize peri-urban rangeland carry capacity and range management					
Outcome Indicator	Number of herder groups adopting intensive farm management techniques	Number of settlements meeting the following criteria: (i) sheep units per 100 ha of pasture is +/- 20% of recommended carrying capacity for intensive farm, (ii) livestock is predominately (75%+) cows, and (iii) hay stored at beginning of winter season is at least 180 days of dairy herd requirement.	Service provider	Annual	Number
Outcome Indicator	Number of herder groups adopting semi-intensive farm management techniques	Number of settlements meeting the following criteria: (i) sheep units per 100 ha of pasture is +/- 20% of recommended carrying capacity for semi-intensive farm, and (ii) hay stored at beginning of winter season is at least 30 days of dairy herd requirement.	Service provider	Annual	Number
Outputs:					
Output Indicator	Leaseholds awarded	Number of leaseholds signed with herder groups	PIU	Annual	Number
Output Indicator	Wells drilled on leaseholds	Number of wells drilled in Rangeland tracts	PIU	Annual (Year 2 and Year 3)	Number
Output Indicator	Training to leaseholders – intensive and semi-intensive farming	Number of farmers capable of managing properly leased land and intensive and semi-intensive farms, at least one person from each household	PIU	Annual	Number



Output Indicator	Training to local officials	Number of local officials capable of managing properly leaseholds, all land officials, agricultural officials, bag/khoroo governors of involved districts/sums, around 24 districts/sums with 8 officials each	PIU	Annual	Number
Process Milestones					
Process Milestone Indicator	Peri-Urban Rangeland Mapping Contractor GIS Database and Maps submitted to MCA	GIS Database and Maps identifying the land tracts to be leased submitted to MCA by the Rangeland Mapping Contractor	PIU	Once	Date
Process Milestone Indicator	Legislative and regulatory commission report submitted	To conduct research on legislation of Rangeland leasing and identify the proposed changes	PIU	Once	Date
Process Milestone Indicator	Proposals submitted by herder groups for leasing land	To identify land leasing criteria and receive herder' application for land leasing	PIU	Once	Date
Process Milestone Indicator	Lottery conducted to choose beneficiaries from those who met minimum criteria	Selection of herders who submitted the application. Lottery selection will be used if there is more than 2 herders applied for the same rangeland	PIU	Once	Date



Vocational Education Project

Indicator Type	Indicator	Definition	Data Source/ Responsible Entity	Frequency	Units
Objective 1: Increased income					
Objective Indicator	Annual salary	Average annual salary of employed graduates who completed new curriculum one year after graduation	MCA Survey of graduates	Annual	2007 USD\$
Objective 2: Increased employment					
Objective Indicator	Rate of employment	Employment rate of graduates who completed new curriculum one year after graduation	MCA Survey of graduates	Annual	Percent
Outcome: Improved quality and relevancy of TVET system					
Outcome Indicator	Non-governmental funding for vocational education	Percentage of non-governmental funding out of all funding for the Ministry of Education, Culture and Science and the Ministry of Social Welfare and Labor vocational education institutions	MCA Survey of school administration	Annual	Percent
Outcome Indicator	Students completing newly designed long-term programs	Number of students who successfully receive certification from newly designed long-term programs	MECS	Annual (starting in Year 3)	Number
Outcome Indicator	Certified vocational education teachers	Percent of total teaching staff which has successfully completed the certification exam	MECS	Annual (starting in Year 3)	Percent
Outputs:					
Output Indicator	Percent of active teachers receiving certification training	Percent of active teachers receiving certification training regardless of pass/fail status	PIU	Annual (starting in Year 3)	Percent
Additional output indicators for the TVET Project will be selected after 6 months.					
Process Milestones					
Process Milestone Indicators	MOU signed for the public-private partnership	MOU outlining roles and responsibilities of MECS, MLSW and MCA-Mongolia for TVET project implementation	MCA-Mongolia	Once	Date
Process Milestone Indicators	NABVET established	National Advisory Board for Vocational Education and Training is policy-making organization for TVET.	MECS and MLSW	Once	Date
Process Milestone Indicators	TVET legislation passed	New Law on TVET is under discussion by the Parliament. The Law establishes a new national policy framework for TVET.	Parliament of Mongolia and PIU	Once	Date



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Process Milestone Indicators	Labor Market Assessment completed	Labor market study will determine Employers' need for skilled workforce and capacity of TVET institutions to meet labor market demand.	Labor market survey Contractor	Once	Date
Process Milestone Indicators	TORs finalized for creating new curricula and for establishing a media support center	TORs for the development of new curricula of 30 trades, based on industrial needs and competency standards.	TVET PIU	Once	Date



Health Project

Indicator Type	Indicator	Definition	Data Source/ Responsible Entity	Frequency	Units
Objective Result 1: Increased control and prevention of NCDIs					
Objective Indicator	Diabetes and hypertension controlled	Percentage of people who, through a combination of diet, exercise and medication, successfully control disease out of population with disease.	NCD-STEPS	Once in 5 year	Percent
Objective Indicator	Cervical cancer prevention	Percent of women diagnosed with pre-cancerous lesions who are appropriately treated	Cancer Center	Annual	Percent
Outcome 1: Early detection					
Outcome Indicator	Percent of cancer cases diagnosed in early stage	Percentage of cervical and breast cancer cases diagnosed in first or second stage	Cancer Center	Annually	Percent
Outcome Indicator	% of those with known diagnosis of hypertension/diabetes out of all actual cases in adult population	Numerator: Number of those previously diagnosed with disease Denominator: Number with disease as determined by biometric/biochemical portion of STEP Survey	NCD-STEP	Once in 5 year	Percent
Outcome 2: Increased access to efficient interventions					
Outcome Indicator	Screened for breast and cervical cancer	Number of women 35 to 40 who have ever received a comprehensive preventative health check-up including a clinical breast exam and visual cervical exam	NCD-STEP	Once in 5 year	Percent
Outcome Indicator	Counseling for diabetes and hypertension	Percent of patients diagnosed with elevated blood pressure and/or blood sugar who receive proper counseling	NCD-STEP	Once in 5 year	Percent
Outputs:					
The output indicators for the Health Project will be selected after the Needs Assessment is conducted by the Institutional Contractor. Expected April 2009.					
Process Milestones					
Process Milestone Indicators	Study Tour Activity completed	To get best international experiences on NCDI	PIU	Once	Date
Process Milestone Indicators	Institutional Contract (IC) awarded	Selection of IC will be completed	PIU, PA	Once	Date
Process Milestone Indicators	RTIS Contract awarded	Selection of RTIS will be completed	PIU, PA	Once	Date
Process Milestone Indicators	Monitoring and Evaluation Plan submitted by I.C Contractor	Monitoring and evaluation plan will be approved	PIU, IC	Once	Date



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Process Milestone Indicators	Road and Traffic Safety activity finalized and key interventions developed	Activities determined in field of Road and Traffic Safety	PIU, IC	Once	Date
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ESA

Indicator Type	Indicator	Definition	Data Source/ Responsible Entity	Frequency	Units
Process Milestones					
Process Milestone Indicators	ESOC Contract Start	Start of ESOC operation	MCA-M, ESIA Officer	Once	Date
Process Milestone Indicators	Final Rail EIA / EMP	EIA conducted and report received in Rail Project	Rail Project EIA Contractor	Once	Date
Process Milestone Indicators	EA / EMP for Urban & Hashaa Component	EA/EMP conducted and report received in Urban & Hashaa Plot Component	ESOC	Once	Date
Process Milestone Indicators	EA/EMP for Peri-Urban Component	EA/EMP conducted and report received in Peri-Urban Component	ESOC	Once	Date



B. Performance Tracking Tables

Goal Indicators

Indicator	Baseline	Year 5 Target	Year 10 Target
Increase in GDP due to Program	US\$3.19 billion	US\$4.63 billion	US\$5.97 billion
Poverty Headcount	19.10%	18.40%	17.50%

Rail Project

Indicators	Units	Baseline	Year 1 10/08 – 9/09	Year 2 10/09 – 9/10	Year 3 10/10 – 9/11	Year 4 10/11 – 9/12	Year 5 10/12 – 9/13
Objective 1: Creation of new jobs and increased profitability in shipping and related industries							
Increase in Mongolia GDP due to rail improvements (million USD)	Million USD	0	1	9	23	40	62
Objective 2: Increase rail traffic volume and shipping efficiency							
Freight Turnover (million ton-km)	Million ton-km	9,219	11,345	12,111	13,164	19,699	22,301
Mine traffic (thousand metric tons)	Thousand metric tons	6,684	8,809	11,588	13,068	14,563	16,156
Outcome1: Private sector involvement in the rail sector							
Percent of wagons leased	Percent	0%					100%
Percent of wagons leased by UBTZ	Percent	0%					90%
Percent of wagons leased by private firms	Percent	0%					10%
Outcome 2: Increased shipping efficiency							
Customer satisfaction		TBD					TBD
Railway operating ratio	Percent	95	95	94	91	89	87
Wagon time to destination	Days	5.2					5
Outcome 3: Increased capacity							
Average locomotive availability (%)	Percent	50	61	66	71	74	76
Outputs							
Locomotives leased	Number	0	0	5	10	10	5
Wagons leased	Number	0	0	0	75	75	0
Maintenance equipment leased	Number	0	0	0	1	0	0
Signaling and Communications system leased	Number	0	0	0	0	1	0
Process Milestones							
Leasing company (LeaseCo) established	Date	March 19 2009 (Q2-09)					
Completion of UBTZ Financial Accounting Report	Date	May 12 2009 (Q3-09)					
Completion of all UBTZ technical training	Date	June 29 2009 (Q3-09)					
Operating company (OpCo) contract signed	Date	June 23, 2009					



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Property Rights Project

Improvement of Land Privatization and Registration System Activity & Privatization & Registration of Ger Area Land Plots Activity

Indicator	Units	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5
Objective: Increased capitalization of land assets							
Immovable property value of hasha plots in UB	USD per square meter, 2007=100	7.28	7.46	7.65	7.84	8.03	8.23
Immovable property value of hasha plots outside UB	USD per square meter, 2007=100	2.44	2.47	2.51	2.55	2.59	2.62
Households accessing formal loan services (#)	Number	6,400					23,400
Outcome:							
Outputs:							
Increased land right formalization	Number	0					75,000
Process Milestones:							
Legislative and regulatory commission report submitted	Date	August 31, 2009					
Design for registry office completed	Date	June 30, 2009					
Awareness and outreach campaign designed	Date	June 1, 2009					
Satellite imagery procured	Date	May 1, 2009					
Building provided for registry office	Date	December 31, 2008					



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Peri-Urban Land Leasing Activity

Indicator	Units	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5
Objective 1: Increased herder household income							
Income of herder households on long-term lease land	USD	\$4,650					\$5,330
Objective 2: Increased peri-urban herder productivity							
Herd mortality rate	%	5.6	5.6	5.325	5.05	4.775	4.5
Liter of milk per cow	Liter	260	260	457.5	655	852.5	1050
Liter of milk per cow	Liter	260					1950
Outcome: Optimize peri-urban rangeland carry capacity and range management							
Number of farms fully adopting intensive farming technique	Number	0	0	11	21	32	40
Number of farms fully adopting semi-intensive farming technique	Number	0	0	66	131	197	260
Outputs:							
Leaseholds awarded	Number	0	300				
Wells drilled on leaseholds	Number			100	300		
Training to leaseholders – semi-intensive and intensive farming	Number	0	300	300	300	300	300
Training to local officials	Number	0	TBD	TBD	TBD	TBD	TBD
Process Milestones:							
Peri-Urban Rangeland Mapping Contractor GIS Database and Maps submitted to MCA	Date	June 1, 2009					
Legislative and regulatory commission report submitted	Date	April 1, 2009					
Proposals submitted by herder groups for leasing land	Date	June 1, 2009					
Lottery conducted to choose beneficiaries from those who met minimum criteria	Date	August 1, 2009					



Vocational Education Project

Indicator	Units	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5
Objective 1: Increased income							
Annual salary (USD) ⁴	2007 USD\$	1237	-	-	-	-	+5%
Objective 2: Increased employment							
Rate of employment (%) ⁵	Percent	71%	-	-	-	-	+2%
Outcome: Improved quality and relevancy of TVET system							
Non-governmental funding for vocational education	Percent	1%	0%	+2%	+4%	+7%	+12%
Students completing newly designed long-term programs	Number	0	0	0	600	4600	10,600
Certified vocational education teachers	Percent	0%	0%	0%	25%	60%	80%
Outputs:							
Percent of active teachers receiving certification training	Percent	0%	0%	0%	20%	70%	100%
Process Milestones:							
MOU signed for the public-private partnership	Date	December 1, 2008					
NABVET established	Date	March 31, 2009					
TVET legislation passed	Date	February 1, 2009					
Labor Market Assessment completed	Date	March 1, 2010					
TORs finalized for creating new curricula and for establishing a media support center	Date	May 31, 2010					

⁴ targets are percent increase over Year 3 level

⁵ targets are percent increase over Year 3 level



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Health Project

Indicator	Units	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5
Objective Result 1: Increased control and prevention of NCDs							
Diabetes and hypertension controlled (%)	Percent	24.4%					44.4%
Cervical cancer prevention (%)	Percent	0%					80%
Outcome 1: Early detection							
Percent of cancer cases diagnosed in early stage	Percent	28%					48%
% of those with known diagnosis of hypertension/diabetes out of all actual cases in adult population	Percent	43%					59%
Screened for breast and cervical cancer	Percent	TBD					39000
Counseling for diabetes and hypertension	Percent	63%					95%
Outcome 2: Increased access to efficient interventions							
Counseling for diabetes	Percent	88%					95%
Counseling for hypertension	Percent	38%					95%
Screened for breast and cervical cancer (%)	Percent	TBD			8,000		39,000
Outputs:							
The output indicators for the Health Project will be selected after the M&E Plan is submitted by the Institutional Contractor. Expected June 2009.							
Process Milestones							
Study Tour Activity completed	Date	December 31, 2008					
Institutional Contract (IC) awarded	Date	January 31, 09					
RTIS Contract awarded	Date	March 31, 2009					
Monitoring and Evaluation Plan submitted by I.C Contractor	Date	June 30, 2009					
Road and Traffic Safety activity finalized and key interventions developed	Date	September 30, 2009					

Indicator	Units	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5
Process Milestones							
ESOC Contract Start	Date	October 31, 2008					
Final Rail EIA / EMP	Date	August 31, 2009					
EA / EMP for Urban & Hashaa Component	Date	February 29, 2009					
EA/EMP for Peri-Urban Component	Date	June 31, 2009					



C. Detailed Impact Evaluation Plan

The rationale for impact evaluation is to establish clear attribution for effect of the program activities compared to a counterfactual. Approaches envisioned for the impact evaluation of each Project or activities are described below. Each of these evaluation designs is preliminary and will be revised after the impact evaluation design reports developed by the contractors have been approved by MCC and MCA-M.

Project 1: Rail Project

Treatment group (Beneficiary): Mongolian Railway sector (LeaseCo and OpCo) and Customers of Mongolian Railway sector (UBTZ, rail shippers and operators and railway passengers)

Comparison group: Mongolia has Railway System that has one single operator UBTZ and UBTZ is owned and operated by Government of Mongolia and Russia. As a result of the project, the number of available locomotives and freight wagons will be increased and the Mongolian railway system will have the capacity to meet freight transportation demand. Direct beneficiaries are the LeaseCo and OpCo companies in terms of capacity building of railway machines. Therefore, UBTZ will be the only competitor in the railway transportation market and therefore, the only group which will not be affected by the project. Hence, the control group will be the UBTZ with its current capacity or Mongolian railway system without LeaseCo and OpCo's operation. In other words, the comparison is the situation "before the project."

Selection Method: Since there is only one railway operator in Mongolia, selection method does not apply.

Baseline data collection: Macroeconomics' survey conducted by the National Statistical Office of Mongolia, UBTZ Statistical Office and MCA-M.

Interim data collection: Reports and database from NSO, UBTZ, LeaseCo, Rail PIU and MCA-M customer satisfactory survey.

Final data collection: Reports and database from NSO, UBTZ, LeaseCo, Rail PIU, and MCA-M customer satisfactory survey.

Methodology: Overall performance of Mongolian Railway system would be compared on a before and after basis. In other words, the evaluation will concentrate on how indicators behaved with the project compared to how they were before the intervention (LeaseCo and OpCo operation). The key impact indicators are (i) Increase in Mongolia GDP due to rail improvements; (ii) Increase rail traffic volume and shipping efficiency and (iii) Private sector involvement in the rail. The final impact evaluation design will be developed through competitive bidding procedures and implementation will be managed and funded by MCA-M.



Project 2 –Property Rights Project, Property Registration

Treatment group: Households within the neighborhoods selected for the first phase of registration

Control group: Households within the neighborhoods selected for a later phase of registration.

Selection Method: Randomized roll-out of neighborhoods eligible for registration.

Baseline data collection: MCA-M khashaa plot survey.

Interim data collection: MCA-M khashaa plot survey, reports and data from PIU and commercial banks.

Final data collection: MCA-M khashaa plot survey reports and data from PIU and commercial banks.

Methodology: A randomized roll-out of the land registration activities by neighborhoods (within UB and the regional centers) appears to be feasible, but must be coordinated well with implementation plans to make sure that additional cost to the project is minimized. The key impact indicators are a) increased household income, b) increased land values, c) improved household access to credit and improved terms under which they receive credit, d) increased probability that land is bought and sold by facilitating land transactions, and e) increased number of households undertaking improvements to their land. The final impact evaluation design will be developed and implemented by consultants funded by MCC.



Project 2 –Property Rights Project, Peri-Urban Rangeland Management

Treatment group: Project beneficiaries are around 300 herder groups in peri-urban areas throughout Mongolia.

Control group: Herder groups who apply, but are not selected to lease tracts of rangeland in peri-urban areas.

Selection Method: Herder groups will lease a rangeland on a voluntary basis however if the number of applicants for leasing exceeds one for each spot, lottery (random) selection will be used for selection of lessee.

Baseline data collection: MCA-M peri-urban survey and PIU data.

Interim data collection: MCA-M peri-urban survey and PIU data.

Final data collection: MCA-M peri-urban survey and PIU data.

Methodology: If there is excess demand by pre-qualified herder groups for the tracts of land offered through the program, then there will be a lottery to select the groups to receive the land leases. The beneficiaries would be selected by random assignment and the others would be randomly assigned to serve as controls. The key impact indicators are a) increased herder household income, b) decreased herd mortality rate, c) increased productivity of the herd, as measured, for example, by liters of milk per dairy cow, and d) use of rangeland within its carrying capacity, as measured by the number of sheep units per hectare of land compared to the recommended carrying capacity, proportion of livestock that are cows, and improved hay storage. Particular attention will be given to program effects with regard to lessee and participators' ability to adopting intensive farming technique. The final impact evaluation design will be developed and implemented by consultants funded by MCC.



Project 3 –TVET Project

Treatment group: Project beneficiaries are primarily TVET students.

Comparison group: TVET students who graduated before the project implementation or graduates from TVET schools which were not affected by the project activities.

Selection Method: The selection methodology for the comparison group has not been determined yet.

Baseline data collection: Survey of school administration and survey of graduates.

Interim data collection: Survey of school administration and survey of graduates.

Final data collection: Survey of school administration and survey of graduates.

Methodology: A methodology has not been determined yet. The key impact indicators are a) increased number of students enrolled in and graduating from vocational education schools, b) increased employment rates of graduates, and c) increased income of graduates from vocational education schools. The analysis will investigate differences by gender, age, and industry. Attention should be given to the question of what works and what doesn't in terms of TVET curriculum and TVET training system. The final impact evaluation design will be developed and implemented by consultants funded by MCC through competitive procurement.



Project 4 –Health Project

Treatment group: Project beneficiaries are 60 percent of the Mongolian adult population, NCDI hospitals and Mongolian health system

Comparison group: Adult population who are not provided NCDI prevention training and NCDI early detection service.

Selection Method: The selection method for the comparison group has not been determined yet.

Baseline data collection: KAP survey conducted by Health Institute and STEP survey conducted by WHO.

Interim data collection: Situation analysis at facilities.

Final data collection: Situation analysis at facilities, KAP survey conducted by Health Institute and STEP survey conducted by WHO.

Methodology: The impact evaluation methodology has not been determined yet. The key impact indicators are (i) Cervical cancer prevention rate; (ii) the rate of Hypertension controlled; (iii) the rate of Diabetes controlled. Particular attention will be given to program effects with regard to behavior change of adult population that usually requires long time. The final impact evaluation design will be developed and implemented by institutional consultants funded by MCA-M.